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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|------------------------|---------------------|------------------|
| 10/065,008 | 09/09/2002 | Robert Charles Baraszu | 201-0190 | 3753 |
| 22844 | 7590 | 05/18/2004 | EXAMINER | |
| FORD GLOBAL TECHNOLOGIES, LLC. SUITE 600 - PARKLANE TOWERS EAST ONE PARKLANE BLVD. DEARBORN, MI 48126 | | | NGUYEN, TAN QUANG | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3661 | |

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/065,008

Applicant(s)

BARASZU ET AL.

Examiner

TAN Q NGUYEN

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 12-15 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09/09/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAIL ACTION

Notice to Applicant(s)

1. Applicant's election of invention I (claims 1-11) filed on March 26, 2004 is acknowledged. Because applicant recited "with traverse" but did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 12-15 have been withdrawn as to non-elected claims.
2. This application is in condition for allowance except for the following formal matters:
3. In the drawing, on page 8, there is no figure number for that figure. It should be labeled as --FIG. 6C--. Correction should be made.
4. In the specification, page 4, paragraph 0018, it recites "Fig. 6", however there is no figure 6 exists in the drawing. It is requested that it should be Fig. --6A-6C--.
Accordingly, the specification should be amended to reflect that change. For example, on page 11, paragraph 0051, line 2, the phrase "Figure 6" should be --Figures 6A-6C--; paragraph 0052, line 3, the phrase "Figure 6" should be --Figure 6A--, and so on.
5. In the claim 6, the phrase recites on lines 3 and 4 "starter/alternator" should be changed to --starter/motor -- in order to match with the one recited in the independent claim 1.
6. After carefully reviewing the application in light of the prior art of record, the amended claims and additional search of all the possible areas relevant to the present application, a set of related prior art references has been found, but those prior art references are not deemed strong to make the application unpatentable.

7. Although the prior art disclose several claimed limitations, none of the references teaches a method for controlling a clutch which connect an engine to a powertrain of a parallel hybrid electric vehicle (PHEV) which includes the steps of determining an engine run command (determining whether the clutch is engaged, engine is at least spinning at a predetermining idle speed, commanding a fuel request), determining a filtered speed error of the engine and a starter/motor (i.e. determining a speed error, determining a scale speed error and inputting the scaled speed error to a digital low pass filter), and generating a clutch position command including the steps of sensing actual clutch position, inputting actual clutch position to a vehicle system controller, determining whether engine speed is greater than a predetermined idle speed, commanding engagement of the clutch when the either the brake device or both brake device and the accelerator are applied and the engine speed is greater than a predetermined idle speed (claims 1, 2, 3, 5 and 10). Also, neither references teaches the filter speed error comprises the steps of multiplying the scaled speed error by a predetermined time constant (TC) and a current determination time step (k), multiplying (1 TC) by the filtered speed error and (k 1), and summing the step multiplying the scaled speed error by TC and a current determination time step K and the step of multiplying (1 TC) by the filtered speed error and (k 1) as recited in claim 8.

Conclusion

8. Claims 1-11 are rejected. Claims 12-15 have been withdrawn.
9. The following references are cited as being of general interest: Nedungadi et al. (6,110,066), Koneda et al. (6,364,807), Phillips et al. (6,558,290), and Maruyama (6,533,701).

10. Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Tan Nguyen, whose telephone number is (703) 305-9755. The examiner can normally be reached on Monday-Thursday from 5:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black, can be reached on (703) 305-8233.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

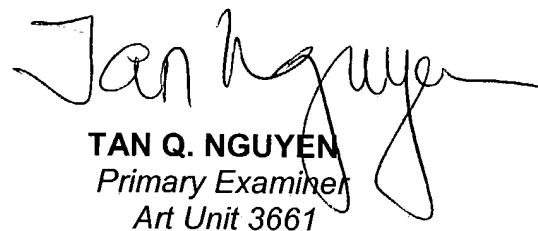
or faxed to:

(703) 305-7687, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park V, 2451 Crystal Drive, Arlington, VA., Seventh Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1113.

/tqn
May 14, 2004


TAN Q. NGUYEN
Primary Examiner
Art Unit 3661